

DETAILED ACTION

Specification

The abstract of the disclosure is objected to because it contains more than 150 words.

Correction is required. See MPEP § 608.01(b).

Additionally, the specification is objected to because the acronyms SIMCA and KNN are not defined either in the abstract or on page 16, line 13 of the disclosure.

Claim Objections

Claim 2 is objected to because of the following informalities: The acronyms SIMCA and KNN should be defined. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-5 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. The omitted steps in claim 1 are: using multivariate analysis to process the near infrared absorption spectrum of hair sample obtained in step 2, in order to evaluate the data obtained in steps 1 and 2. This omission is further indicated by page 19 of the applicant's specification.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 2003344279 A (Koyo('279)) in view of US 5,725,600 (Caisey('600)).

In re claims 1, 3, and 5, Koyo('279) teach a method for measuring characteristics of hair using infrared rays in the field of cosmetics and hair treatments. Specifically, Koyo('279) teach evaluating the damaging effects of bleaching treatments on hair characteristics such as moisture content using infrared spectrum data ([0008]). Additionally, Koyo('279) teach measuring hair characteristics such as moisture content initially by a known or conventional method ([0003]) and obtaining an infrared absorption spectrum ([0008]) of two or more hair samples ([0011]) and calculating a degree of hair damage, termed an external change factor based on spectrum data

([0059]). The examiner notes that Koyo('279) do not expressly teach evaluating the degree of damage caused by the permanent or oxidation treatment or the likelihood that damage will occur during a particular treatment. However, in the field of infrared bleaching cosmetics, Caisey('600) teach a method for determining the degree of bleaching required for hair damage to occur using damage threshold levels (col 4, lns 13-41) which help to determine the likelihood that damage will occur, and, further, the amount of cracking in the hair follicle is used to determine the degree of damage. Hence, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the infrared measuring method as disclosed by Koyo('279) with the method for evaluating hair damage due to bleaching as disclosed by Caisey('600) in order to correlate hair samples having a known, measured hair damage characteristic with samples having varying degrees of permanent or bleaching treatments to determine optimal treatment composition and duration for minimizing hair damage.

In re claim 2, Koyo('279) teach a principal component regression analysis ([0031]).

In re claim 4, Koyo('279) teach the invention as described above except for expressly teaching a method for determining the degree of an oxidation treatment applied to the hair. However, Caisey('600) teach a method for determining the degree of bleaching (col 4, lns 13-41). Hence, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the infrared measuring method as disclosed by Koyo('279) with the method for determining the degree of bleaching applied to hair as disclosed by Caisey('600) in order to quantify the amount of treatment applied to a hair sample for comparative analysis among varying samples and sample types.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANIEL HUNTLEY whose telephone number is (571)270-1217. The examiner can normally be reached on Monday through Friday, 7:30-4, alternating Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Casler can be reached on 571-272-4956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ruth S. Smith/
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